

REMARKS

Careful consideration has been given by the applicants to the Examiner's comments and rejection of the claims, as set forth in the outstanding Office Action, and favorable reconsideration and allowance of the application, as amended, is earnestly solicited.

Applicants note the Examiner's rejection of Claims 1, 3, 9-11, 13, 19 and 20 under 35 U.S.C. §103(s), as being unpatentable over Katchmar, U.S. Patent No. 6,392,890, previously cited, in view of the Admitted Prior Art, as detailed in the Office Action. Furthermore, applicants note the rejection of Claims 2, 4-7, 12 and 14-17 under 35 U.S.C. §103(a), as being unpatentable over Katchmar in view of the Admitted Prior Art as applied to Claim 1, and further in view of Barber, et al., U.S. Patent No. 6,590,292, as previously cited and as detailed in the Office Action.

Concerning the foregoing, applicants note the Examiner's comments, particularly to the statements made in Katchmar, wherein the latter indicates that the thermally conductive material 42 is injected depending on particular circumstances, and wherein this material should not be so much in quantity as there would be an insufficient amount of electrically insulator material 36 to contain it.

However, the comments made in Katchmar are rather vague in nature, and, in particular, applicants note, upon reading the specification of Katchmar and referring to the drawings therein, this indicates that the electrically conductive material is of a relatively large dimension compared to the overall surface, and wherein the electrically conductive material or the thermal insulation provided for by component 36 in Katchmar is relatively small or only equal in size or slightly larger than the electrically conductive material.

To the contrary, pursuant to the present invention, the electrically conductive material or adhesive 18 is deposited in and restricted to a small area 16 centrally located on the heat spreader 14, and forms only a minute aerial component of the overall surface area, the major portion of which is covered by the electrically non-conductive adhesive 20. The central spot or dot 16 of the electrically conductive adhesive 18 is generally no larger than 1 mm in size, and in comparison with the overall surface dimensions, is a minor component, whereby the larger surface area, which is the insulating material, prevents any outflow or contact of electrically conductive adhesive towards the edges of the heat spreader. Consequently, inasmuch as that particular electrically conductive material is confined to that central small spot on the surface of the heat spreader, this eliminates the danger of any short circuiting by electrically conductive material coming into contact with other electrically conductive components of the device. Consequently, this particular aspect of confining this small spot of electrically conductive adhesive to the central portion of the heat spreader is unique in its concept and is not at all disclosed in either Katchmar or the Admitted Prior Art. The only aspect with regard to the Admitted Prior Art resides in that use of two types of adhesives, in effect, thermally conductive adhesives, which are electrically non-conductive or dielectric or electrically conductive adhesives which are employed in the technology. However, it remained for the present applicants to uniquely dimension and arrange the two adhesives so as to avoid the possibility of electrical short-circuiting.

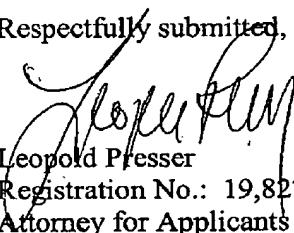
In connection with the foregoing, even combining Katchmar with Barber, et al. would not be applicable to the invention, inasmuch as the latter completely fails to show any aspects of utilizing the two types of adhesive on a heat spreader in a manner analogous to the present invention as claimed herein.

However, in order to further distinguish over the art, applicants have incorporated the subject matter of dependent Claims 3 and 7 into independent Claim 1, and dependent Claims 13 and 17 into independent Claim 11, respectively.

This further emphasizes the particular arrangement of the small spot of the electrically conductive adhesive 18 relative to the larger area covered by encompassing or enclosing electrically non-conductive adhesive, the properties of which are now more specifically defined in the claims

In view of the foregoing comments and amendments, which are deemed to be fully responsive to the grounds of rejection and wherein the claims clearly provide patentable distinctions over the prior art, the early and favorable reconsideration and issuance of the Notice of Allowance by the Examiner is earnestly solicited. However, in the event that the Examiner has any queries concerning the instantly submitted Amendment, applicants' attorney respectfully requests that he be accorded the courtesy of possibly a telephone conference to discuss any matters in need of attention.

Respectfully submitted,



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